



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/018,117	12/14/2001	Joachim Guderian	GUDERIAN ET AL (PCT)	1553
25889	7590	02/20/2004	EXAMINER	
WILLIAM COLLARD COLLARD & ROE, P.C. 1077 NORTHERN BOULEVARD ROSLYN, NY 11576			TOOMER, CEPHIA D	
			ART UNIT	PAPER NUMBER
			1714	

DATE MAILED: 02/20/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/018,117

Applicant(s)

GUDERIAN ET AL.

Examiner

Cephia D. Toomer

Art Unit

1714

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 January 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2 and 4-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1,2,4,6,8-10,13-16,19-24,26 and 27 is/are allowed.
- 6) ☒ Claim(s) 5,7,11,12,17,18 and 25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- ☒ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

DETAILED ACTION

This Office action is in response to the amendment filed January 30, 2004 in which claims 1, 5, 7, 10, 11, 15-18, 21 and 25 were amended and claim 3 was cancelled.

The finality of the prior office action is withdrawn. Claims 5, 7, 17, 18 and 25 were objected to in the office action. However, upon further review these claims should have been rejected under 35 USC 103(a).

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 11 and 12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 sets forth that the mixture consists of carbon-bearing material and binding agent. Therefore, claim 1 is closed to the addition of one or more aggregates being added to the carbon-bearing material and/or binding agent.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and

Art Unit: 1714

the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 5, 7, 17, 18, and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over DE 4416576.

DE teaches the manufacturing of spherical activated carbon wherein the product is prepared by mixing ground fruits, nuts or vegetable material (particle size 10-500 micrometers) that is impregnated with 2-4% aqueous Li salt solution with coal powder (particle size 10-80 micrometers) (water-containing binder) and cellulose fibers that are impregnated with the aqueous Li solution. The product also contains 5-30 wt % of a phenolic binder. The resulting mixture is shaped to form spheres, dried, hardened, carbonized (300-650 C) and activated with CO₂ and/ or steam at 500-950 C (see CAPLUS abstract, EP abstract and DERWENT abstract). In applicant's response, mailroom date stamp of July 18, 2003, applicant states that in the translated version of the prior art that DE 44 16 576 differs from the invention in that the prior art drying process is performed at temperatures of 150 °C to 250 °C within 10 to 25 minutes. However, Applicant's higher temperature range is the same as the lower temperature range of DE. Therefore, the temperature ranges overlap. With respect to the length of drying time, 30 minutes is close enough to 25 minutes that one skilled in the art would expect that the properties of the shaped articles would be similar. DE teaches the limitations of the claims other than the differences that are discussed below.

In the first aspect, DE differs from the claims in that it does not specifically teach that the shaped articles are dried to an overall weight of $\leq 3\%$ by weight (all claims). However, it would have been obvious to one of ordinary skill in the art to have dried

Art Unit: 1714

to shaped articles to the moisture level because the articles are used to remove pollutants from liquids and it would be advantageous to have the shaped articles as moisture free as possible.

In the second aspect, DE differs from the claims in that it does not specifically teach that the shaped articles are dried on a belt dryer. However, it would have been obvious to one of ordinary skill in the art to have dried the shaped articles in this manner because the manner in which DE sets forth the invention suggests sequential steps (drying, hardening, carbonizing and activating) and it would be easier to perform each step if the shaped article is moving along a belt.

With respect to claim 17 regarding the non-water-containing binding agent, the agent has not been given patentable weight because the agent is an optional ingredient.

With respect to the limitations of claim 25 regarding the mixing of the binding agents prior to their mixing with the carbon-bearing material, it is well settled that the selection of any order of mixing ingredients is prima facie obvious. See MPEP 2144.04 IV(C).

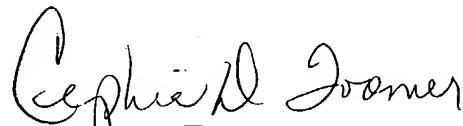
Claims 1-2 and 4, 6, 8-10, 13-16, 19-24 and 26-27 are allowable because the prior art fails to teach or suggest when drying the molded articles that a heated gas is passed over the molded articles. The prior art fails to teach the dried molded articles are carbonized in a three-zone torque tube. The prior art also fails to teach the claimed method wherein the water-containing binding agent comprises molasses.

Art Unit: 1714

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cephia D. Toomer whose telephone number is 571-272-1126. The examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on 571-272-1119. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Cephia D. Toomer
Primary Examiner
Art Unit 1714

10018117\021104